AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

Please cancel Claim 1.

2. (Currently Amended) A communication circuit of Claim ~~1~~5, wherein said hybrid comprises an isolation transformer.

3. (Currently Amended) A communication circuit of Claim ~~1~~5, wherein said hybrid comprises an active circuit.

Please cancel Claim 4.

5. (Currently Amended) ~~A communication circuit of Claim 4,~~ A communication circuit comprising:

a near end transmitter;

a hybrid having an input in communication with an output of said near end transmitter;

a near end replication transmitter;

a high pass filter responsive to said near end replication transmitter;

a subtractor to subtract an output from said high pass filter from the output from said near end transmitter and an output of said hybrid; and

a near end receiver responsive to an output of said subtractor,

wherein said near end replication transmitter is adjustable, and wherein said near end replication transmitter comprises a current generator in communication with an adjustable load.

6. (Currently Amended) ~~A communication circuit of Claim 4,~~ A communication circuit comprising:

a near end transmitter;

a hybrid having an input in communication with an output of said near end transmitter;

a near end replication transmitter;

a high pass filter responsive to said near end replication transmitter;

a subtractor to subtract an output from said high pass filter from the output from said near end transmitter and an output of said hybrid; and

a near end receiver responsive to an output of said subtractor,

wherein said near end replication transmitter is adjustable, and wherein said near end replication transmitter comprises an adjustable current generator in communication with a load.

7. (Currently Amended) ~~A communication circuit of Claim 1, further comprising~~ A communication circuit comprising:

a near end transmitter;

a hybrid having an input in communication with an output of said near end transmitter;

a near end replication transmitter;

a high pass filter responsive to said near end replication transmitter;

a subtractor to subtract an output from said high pass filter from the output from said near end transmitter and an output of said hybrid;

a near end receiver responsive to an output of said subtractor; and

an adjustable capacitive load in communication with said near end replication transmitter to maximize signal delay matching between said near end transmitter and said near end replication transmitter.

8. (Original) A communication circuit of Claim 7, further comprising an adaptive control circuit, wherein said adjustable capacitive load is responsive to said adaptive control circuit.

9. (Currently Amended) ~~A communication circuit of Claim 1,~~ A communication circuit comprising:

a near end transmitter;

a hybrid having an input in communication with an output of said near end transmitter;

a near end replication transmitter;

a high pass filter responsive to said near end replication transmitter;

a subtractor to subtract an output from said high pass filter from the output from said near end transmitter and an output of said hybrid;

a near end receiver responsive to an output of said subtractor; and

wherein said high pass filter comprises an inductor having similar characteristics as said hybrid.

10. (Original) A communication circuit of Claim ~~15~~5, wherein said high pass filter comprises a combination of a resistance and a capacitance.

11 – 16. (Cancelled).

Please cancel Claim 17.

18. (Currently Amended) A communication circuit of Claim ~~17~~21, wherein said hybrid means comprises an isolation transformer.

19. (Currently Amended) A communication circuit of Claim ~~17~~21, wherein said hybrid means comprises an active circuit.

Please cancel Claim 20.

21. (Currently Amended) ~~A communication circuit of Claim 20,~~ A communication circuit comprising:

near end transmitting means for transmitting a transmitted signal;

hybrid means having an input in communication with an output of said near end transmitting means for communicating the transmitted signal to and a received signal from a channel;

near end replication transmitting means for generating a replication signal;

high pass filter means for high pass filtering the replication signal;

subtracting means for the high pass filtered replication signal from the transmitted and received signals; and

near end receiving means for receiving an output signal from said subtracting means,

wherein said near end replication transmitting means is adjustable, and

wherein said near end replication transmitting means comprises a current generator means for generating a current and in communication with an adjustable load.

22. (Currently Amended) ~~A communication circuit of Claim 20,~~ A communication circuit comprising:

near end transmitting means for transmitting a transmitted signal;

hybrid means having an input in communication with an output of said near end transmitting means for communicating the transmitted signal to and a received signal from a channel;

near end replication transmitting means for generating a replication signal;

high pass filter means for high pass filtering the replication signal;

subtracting means for the high pass filtered replication signal from the transmitted and received signals; and

near end receiving means for receiving an output signal from said subtracting means,

wherein said near end replication transmitting means is adjustable, and

wherein said near end replication transmitting means comprises an adjustable current generator means for generating a current in communication with a load.

23. (Currently Amended) ~~A communication circuit of Claim 20,~~ A communication circuit comprising:

near end transmitting means for transmitting a transmitted signal;

hybrid means having an input in communication with an output of said near end transmitting means for communicating the transmitted signal to and a received signal from a channel;

near end replication transmitting means for generating a replication signal;

high pass filter means for high pass filtering the replication signal;

subtracting means for the high pass filtered replication signal from the transmitted and received signals; and

near end receiving means for receiving an output signal from said subtracting means,

wherein said near end replication transmitting means is adjustable, and

wherein said near end replication transmitting means maximizes the amplitude matching between said near end transmitting means and said near end replication transmitting means.

24. (Currently Amended) ~~A communication circuit of Claim 17, further comprising~~ A communication circuit comprising:

near end transmitting means for transmitting a transmitted signal;

hybrid means having an input in communication with an output of said near end transmitting means for communicating the transmitted signal to and a received signal from a channel;

near end replication transmitting means for generating a replication signal;

high pass filter means for high pass filtering the replication signal;

subtracting means for the high pass filtered replication signal from the transmitted and received signals;

near end receiving means for receiving an output signal from said subtracting means; and

an adjustable capacitive load means in communication with said near end replication transmitting means for maximizing signal delay matching between said near end transmitting means and said near end replication transmitting means.

25. (Original) A communication circuit of Claim 24, further comprising an adaptive control means for controlling said adjustable capacitive load.

26. (Currently Amended) ~~A communication circuit of Claim 17,~~ A communication circuit comprising:

near end transmitting means for transmitting a transmitted signal;

hybrid means having an input in communication with an output of said near end transmitting means for communicating the transmitted signal to and a received signal from a channel;

near end replication transmitting means for generating a replication signal;

high pass filter means for high pass filtering the replication signal;

subtracting means for the high pass filtered replication signal from the transmitted and received signals; and

near end receiving means for receiving an output signal from said subtracting means,

wherein said high pass filter means comprises an inductor means having similar characteristics as said hybrid means.

27. (Currently Amended) A communication circuit of Claim ~~17~~21, wherein said high pass filter means comprises a combination of a resistance and a capacitance.

28 – 33 (Cancelled).

34. (Currently Amended) A communication circuit of Claim [[4]]5, wherein said near end replication transmitter maximizes the amplitude matching between said near end transmitter and said near end replication transmitter.

Please cancel Claim 35.

Please cancel Claim 36.

37. (Currently Amended) ~~A communication method of Claim 36,~~ A communication method comprising the steps of:

(a) transmitting a transmitted signal;

(b) combining the transmitted signal with a received signal from a channel;

(c) generating a replication signal;

(d) high pass filtering the replication signal;

(e) subtracting the high pass filtered replication signal from the transmitted and received signals;

(f) receiving an output signal from step (e); and

(g) adjusting the replication signal;

wherein step (g) comprises the steps of adjusting a current and adjusting a load.

38. (Currently Amended) ~~A communication method of Claim 36,~~ A communication method comprising the steps of:

(a) transmitting a transmitted signal;

(b) combining the transmitted signal with a received signal from a channel;

(c) generating a replication signal;

(d) high pass filtering the replication signal;

(e) subtracting the high pass filtered replication signal from the transmitted and received signals;

(f) receiving an output signal from step (e); and

(g) adjusting the replication signal;

wherein step (g) comprises the step of adjusting a current.

39. (Currently Amended) ~~A communication method of Claim 36,~~ A communication method comprising the steps of:

(a) transmitting a transmitted signal;

(b) combining the transmitted signal with a received signal from a channel;

(c) generating a replication signal;

(d) high pass filtering the replication signal;

(e) subtracting the high pass filtered replication signal from the transmitted and received signals;

(f) receiving an output signal from step (e); and

(g) adjusting the replication signal;

wherein step (g) comprises the steps of maximizing the amplitude matching between the replication signal and the transmitted signal.

40 – 43 (Cancelled).

Please cancel Claim 44.

45. (Cancelled).

Please cancel Claim 46.

47. (Cancelled).

Please cancel Claim 48.

49. (Cancelled).

50. (Original) A communication circuit of Claim 5, further comprising a calibration circuit to adjust the adjustable load against a reference load.

51. (Currently Amended) A communication circuit of Claim ~~1~~5, wherein said near end replication transmitter comprises a voltage multiplier.

52 – 53 (Cancelled).

54. (Original) A communication circuit of Claim 21, further comprising a calibration means for calibrating the adjustable load against a reference load.

55. (Currently Amended) A communication circuit of Claim ~~17~~21, wherein said near end replication transmitting means comprises a voltage multiplier means for multiplying an output of said replication transmitting means.

56 – 57 (Cancelled).

58. (Currently Amended) A method of Claim ~~35~~37, wherein step (c) comprises the step of multiplying an output of the replication signal.

59. (Previously Presented) A method of Claim 37, further comprising the step of calibrating the load against a reference load.

60 – 84 (Cancelled).

Please cancel Claim 85.

86. (Currently Amended) The communication circuit of claim ~~85~~90, wherein the hybrid comprises an isolation transformer.

87. (Currently Amended) The communication circuit of claim ~~85~~90, wherein the hybrid comprises an active circuit.

Please cancel Claim 88.

89. (Currently Amended) The communication circuit of claim ~~88~~90, wherein the near end replication transmitter comprises an adjustable gain control.

90. (Currently Amended) ~~The communication circuit of claim 88,~~ A communication circuit, comprising:

a near end transmitter;

a hybrid including an input in communication with an output of the near end transmitter;

a near end replication transmitter;

a high pass filter responsive to the near end replication transmitter for high-pass filtering a signal received from the near end replication transmitter;

a subtractor to subtract an output from the high pass filter from the output from the near end transmitter and an output of the hybrid; and

a near end receiver responsive to an output of the subtractor,

wherein the near end replication transmitter is adjustable, and

wherein the near end replication transmitter comprises a current generator in communication with an adjustable load.

91. (Currently Amended) ~~The communication circuit of claim 88,~~ A communication circuit, comprising:

a near end transmitter;

a hybrid including an input in communication with an output of the near end transmitter;

a near end replication transmitter;

a high pass filter responsive to the near end replication transmitter for high-pass filtering a signal received from the near end replication transmitter;

a subtractor to subtract an output from the high pass filter from the output from the near end transmitter and an output of the hybrid; and

a near end receiver responsive to an output of the subtractor,

wherein the near end replication transmitter is adjustable, and

wherein the near end replication transmitter comprises an adjustable current generator in communication with a load.

92. (Currently Amended) ~~The communication circuit of Claim 88,~~ A communication circuit, comprising:

a near end transmitter;

a hybrid including an input in communication with an output of the near end transmitter;

a near end replication transmitter;

a high pass filter responsive to the near end replication transmitter for high-pass filtering a signal received from the near end replication transmitter;

a subtractor to subtract an output from the high pass filter from the output from the near end transmitter and an output of the hybrid; and

a near end receiver responsive to an output of the subtractor,

wherein the near end replication transmitter is adjustable, and

wherein the near end replication transmitter maximizes the amplitude matching between the near end transmitter and the near end replication transmitter.

93. (Currently Amended) ~~The communication circuit of claim 85, further comprising:~~ A communication circuit, comprising:

a near end transmitter;

a hybrid including an input in communication with an output of the near end transmitter;

a near end replication transmitter;

a high pass filter responsive to the near end replication transmitter for high-pass filtering a signal received from the near end replication transmitter;

a subtractor to subtract an output from the high pass filter from the output from the near end transmitter and an output of the hybrid;

a near end receiver responsive to an output of the subtractor; and

an adjustable capacitive load in communication with the near end replication transmitter to maximize signal delay matching between the near end transmitter and the near end replication transmitter.

94. (Previously Presented) The communication circuit of claim 93, further comprising:

an adaptive control circuit,

wherein the adjustable capacitive load is responsive to the adaptive control circuit.

95. (Currently Amended) ~~The communication circuit of claim 85,~~ A communication circuit, comprising:

a near end transmitter;

a hybrid including an input in communication with an output of the near end transmitter;

a near end replication transmitter;

a high pass filter responsive to the near end replication transmitter for high-pass filtering a signal received from the near end replication transmitter;

a subtractor to subtract an output from the high pass filter from the output from the near end transmitter and an output of the hybrid; and

a near end receiver responsive to an output of the subtractor,

wherein the high pass filter comprises an inductor including characteristics similar to the hybrid.

96. (Currently Amended) ~~The communication circuit of claim 85,~~ A communication circuit, comprising:

a near end transmitter;

a hybrid including an input in communication with an output of the near end transmitter;

a near end replication transmitter;

a high pass filter responsive to the near end replication transmitter for high-pass filtering a signal received from the near end replication transmitter;

a subtractor to subtract an output from the high pass filter from the output from the near end transmitter and an output of the hybrid; and

a near end receiver responsive to an output of the subtractor,

wherein the high pass filter comprises a combination of a resistance and a capacitance.